EDITORIAL

https://doi.org/10.5125/jkaoms.2026.52.4.165
pISSN 2234-7550 · eISSN 2234-5930

Increasing number of non-risk oral cancer patients in Korea: obesity and oral cancer

Kang-Min Ahn, DDS, MSD, PhD
Director of Korean Society of Oral Cancer (2023-2028)
Department of Oral and Maxillofacial Surgery, Asan Medical Center, College of Medicine, University of Ulsan, Seoul, Korea

It has been well known that tobacco smoking and high alcohol consumption are considered major risk factors of oral tongue squamous cell carcinoma. However, the number of oral cancer patients without risk factors has recently been increasing. In particular, many female patients with oral cancer have no history of smoking or heavy alcohol consumption. In South Korea, approximately 3,000-4,000 new cases of oral cancer are diagnosed each year. Recently, the number of oral cancer patients has been rising not only among the elderly but also among relatively young people in their 20s and 30s. This phenomenon is occurring worldwide, and its exact cause has not been identified.

A groundbreaking drug for treating obesity has recently been developed and is enjoying sensational popularity. The key players in the currently trending obesity treatment are glucagon-like peptide-1 (GLP-1) receptor agonist injections. Wegovy (Novo Nordisk) and Mounjaro (Eli Lilly and Company) are the two most popular drug for obesity treatment. They are so popular that they were recently designated as a drug subject to abuse in Korea. It is encouraging that obesity is recognized as a serious medical condition and that treatments for it have been developed.

I recently performed surgery for tongue cancer on a man and a woman in their 40s—a relatively young age group for oral cancer. Neither patient had risk factors such as alcohol or tobacco use, but both shared the characteristic of obesity. The male patient was 195 cm tall and weighed 175 kg, while the female patient was 165 cm tall and weighed 110 kg. Can obesity really be linked to oral cancer in these two patients? Obesity is believed to promote carcinogenesis by affecting the body's metabolism and immune system, and by inducing hormonal changes and inflammatory responses. Recent studies on the link between obesity and oral cancer have yielded starkly different results. Lim et al.[1] stated that oral cancer, melanoma and leukemia are not significantly associated with obesity. Choi et al.[2] reported that the incidence of oral cancer increased only in males. Wang et al.[3] suspected the close relationship between obesity and head and neck cancer. Gui et al.[4] even reported obesity decreased the risk of total head and neck cancer incidence.

A lecture on the latest oral and maxillofacial treatment guidelines for diabetic and obese patients is scheduled for the upcoming autumn academic conference of the 2026 Korean Association of Oral and Maxillofacial Surgeons: this strikes me as a timely and excellent choice of topic for the event. This academic conference will cover comprehensive topics related to obesity medications, featuring lectures on the current status and future prospects of various treatment. It is hoped that this systemic review on obesity and oral cancer will serve as a turning point in treatment of oral cancer patients with obesity who lack other risk factors. Finally, the two patients mentioned above are currently undergoing outpatient follow-up without any recurrence or metastasis.

Funding

No funding to declare.

Conflict of Interest

No potential conflict of interest relevant to this article was

Kang-Min Ahn
Department of Oral and Maxillofacial Surgery, Asan Medical Center, College of Medicine, University of Ulsan, 88 Olympic-ro 43-gil, Songpa-gu, Seoul 05505, Korea
TEL: +82-2-3010-5901
E-mail: ahnkangmin@gmail.com
ORCID: https://orcid.org/0000-0003-1215-5643

This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (http://creativecommons.org/licenses/by-nc/4.0/), which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

© 2026 The Korean Association of Oral and Maxillofacial Surgeons.

reported.

References

1. Lim JS, Kim S, Cho IY, Shin DW. Obesity and cancer: mechanisms, epidemiological evidence, and potential risk reduction. J Obes Metab Syndr 2026;35:14-37. https://doi.org/10.7570/jomes25088
2. Choi GW, Cheong HK, Choi SY, Lee YC, Oh IH, Eun YG. Association between oral cavity cancer and metabolic syndrome. J Cancer Res Clin Oncol 2023;149:4005-13. https://doi.org/10.1007/s00432-022-04288-4
3. Wang K, Yu XH, Tang YJ, Tang YL, Liang XH. Obesity: an emerging driver of head and neck cancer. Life Sci 2019;233:116687. https://doi.org/10.1016/j.lfs.2019.116687
4. Gui L, He X, Tang L, Yao J, Pi J. Obesity and head and neck cancer risk: a Mendelian randomization study. BMC Med Genomics 2023;16:200. https://doi.org/10.1186/s12920-023-01634-4

How to cite this article: Ahn KM. Increasing number of non-risk oral cancer patients in Korea: obesity and oral cancer. J Korean Assoc Oral Maxillofac Surg 2026;52:165-166. https://doi.org/10.5125/jkaoms.2026.52.4.165